PUBLIC SERVICE COMMISSION OF WISCONSIN

ANNUAL REPORT ON UNIVERSAL SERVICE TO THE JOINT COMMITTEE ON INFORMATION POLICY

The Public Service Commission respectfully submits this report to the Joint Committee on Information Policy as required by Wis. Stat. § 196.218(5r).

December 2000

ANNUAL REPORT ON UNIVERSAL SERVICE
BY THE PUBLIC SERVICE COMMISSION OF WISCONSIN

Executive Summary

Pursuant to Wis. Stat. § 196.218(5r), this report is being submitted to update the Joint Committee on Information Policy (Joint Committee) on the status of programs and policies designed to promote universal service and investment in telecommunications services in Wisconsin. The report evaluates the rules, programs and regulatory policies that impact universal service and investment for their impact on consumer choice, competition, economic development, efficiency and productivity, quality of life, and services to diverse income and racial populations.

This year's submission consists of two separate reports: (1) the annual report on universal service; and (2) the Commission's report regarding universal service funding for public, educational and government (PEG) broadcast channels as required under Wis. Stat. § 196.218(5r)(b).

As required by Wis. Stat. § 196.218(5m), the Commission completed its biennial review of the universal service rules late last year. The revised rules went into effect on May 1, 2000.

I. Introduction

As required by Wis. Stat. § 196.218(5r) this report is being submitted by the Commission to the Joint Committee on Information Policy (Joint Committee).

Pursuant to Wis. Stat. § 196.218(5r)(a), the Commission's annual reports on universal service are to address and include information on the following areas:

- The affordability of and accessibility to a basic set of essential telecommunications services and of advanced service capabilities throughout the state.

- The affordability of and accessibility to high-quality education, library and health care information services.

- Financial assistance provided under the Universal Service Fund.

- How successful the investments in telecommunications infrastructure identified in Wis. Stat § 196.196(5)(f), assistance provided by the USF and the Wisconsin Advanced Telecommunications Foundation (WATF), price regulation and other alternative regulation plans of telecommunications utilities adopted to promote competition have been in advancing the public interest goals in Wis. Stat. § 196.03(6); and recommendations for further advancing those goals.

In this report, the Commission addresses a variety of universal service topics, including the promulgation of the Commission's universal service rules, the status of fund administration, and changes due to the latest set of revisions of the rules.

Current Status of Universal Service in Wisconsin

Over the past ten years, the percentage of households in Wisconsin with telephone service has fluctuated between 96 and 98 percent. At such high levels of penetration, it is almost impossible to distinguish the impact of new programs designed to increase penetration from normal fluctuations, and sampling error.[1]

Rates for residential basic telephone service remain low, in part because the traditional subsidies which have been built into these rates remain, to a large extent, still in place. This is especially true of the smaller, rural telephone companies. In general, the Commission lacks jurisdiction to force the removal of these subsidies, and the lack of competition in these areas has meant that the companies have little incentive to remove these subsidies, since the result would be to increase the rates for their residential customers, which would have a very real effect on customer satisfaction.

In the area of universal service, one significant concern exists. It is not certain that the market will provide advanced services, including high-speed Internet access and data transmission, rapidly enough, especially in rural areas. The existing telecommunications network has been engineered to handle voice very well. It was not engineered to handle high-speed data transmission. Upgrading the network to support the services customers are beginning to demand will require extensive investments. In high density areas, the number of customers will be sufficient to provide a reasonable return on such investments. In less dense areas, or areas of depressed demand, the market may not find it cost-effective to make these investments, and universal service support may be required. At present, the Advanced Services program should meet the needs of individual early users of advanced services in rural areas. The Commission staff is continuing to monitor the demand for these services, and will propose additional changes if the demand for these service broadens.

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[1] *Telephone Subscribership in the United States*, Federal Communications Commission, Common Carrier Bureau, January, 1998.

II. The affordability of and accessibility to a basic set of essential telecommunications services and of advanced service capabilities throughout the state

A. Affordability and Access

As noted in the last annual report, Wisconsin's telephone penetration rates (a statistical measure of the percentage of households that have telephone service) have consistently been among the highest in the United States. This trend continues. The average residential rate for local service, without subscriber line charges and taxes, remains close to the national average. However, the residential local rate is only one part of the total monthly telephone bill. The typical residential customer pays both a monthly rate for telephone service, extended community calling[2], both short and long haul long distance charges, and, in some cases, per call charges for local calls (Ameritech serves the majority of the state's customers and charges per call; not all other local exchange carriers charge per call). Long distance expenses are generally higher in rural areas, since the local calling area is usually smaller, and calls to the customers' place of work, education and shopping areas are often long distance.

The high penetration levels and low rates for basic voice service have been achieved through almost 100 years of regulatory rate design that resulted in relatively uniform rates for all customers without regard to the underlying costs of providing service. Competitive local exchange companies only enter markets where rates are above the cost of providing service. As high margin customers are lost, local exchange companies (LECs) will respond by moving prices for all customers away from averages and toward the actual cost of service. The net result will be that customers living in areas where the cost of providing service is high will face significantly higher rates. However, competition has been slow to enter the residential markets, especially in rural areas. As a result, this deaveraging has barely begun.

The Commission has an existing program to support customers in high-cost areas: the High-Rate Assistance Credits program described in Wis. Admin. Code § PSC 160.09. The Commission has significantly modified that program, so that it reflects the total costs the average residential telephone customer pays, not just the local service rates. Therefore, the revised program compares customer ability to pay (derived from median household for the county in which the customer lives) to the basic monthly rates, plus the expected cost of a reasonable mix of local, extended area calling and long distance charges. To date, this program is not widely used, primarily because the historic subsidies and averaged rates are still masking the true cost of service in these areas. That cannot be expected to last.

The use of averages also masks penetration problems in smaller geographic areas. Telephone penetration rates are much lower for some groups or classes of households than is suggested by the summary statistics. The Current Population Survey found that penetration levels decrease significantly for lower income levels, for those classified as unemployed, for some racial groups, and for younger households.[3] Most universal service programs have been narrowly targeted to reach one or more of these groups, areas or individuals. The Commission has created two universal service programs aimed at low income groups: the Link-up Program (which waives connection charges for eligible customers) and

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[2] *Extended Community Calling* allows calling to neighboring communities at rates that are lower than long distance, but that reflect the fact that such calls carry higher costs than truly intraexchange calls.

[3] *Falling Through the Net: A Survey of the "Have Nots" in Rural and Urban America*, U. S. Department of Commerce, July 1995.

the Lifeline program (which provides discounts in monthly rates for eligible customers). Both programs have been in effect for a number of years, and both programs were modified in the latest round of universal service rules updates.[4] The primary goal of the modifications was to incorporate changes in the federal programs, to maximize the amount of federal assistance available to eligible customers.

A recent report from the Telecommunications Industries Analysis Project (TIAP) entitled *Closing the Gap: Universal Service for Low-Income Households*, analyzed the effectiveness of state efforts to enroll low-income customers in their Lifeline & Link-Up programs. Wisconsin, at 71 percent participation, placed first in Lifeline participation among states that offered less than the federal maximum Lifeline benefit (currently the minimum benefit is $7.00 per month as opposed to the $10.50 maximum for federal matching contributions). Further, Wisconsin's 71 percent participation rate placed it third in the nation, exceeding dozens of states that offer the maximum monthly benefit.

The National Association of Regulatory Utility Commissioners (NARUC) resolved in July 2000, that a major conclusion of the study is that: "An increase in the monthly amount of support per household above the minimum $5.25 generally increases the percent of eligible low-income households with telephone service by 7 percent on average." However, another clause of that resolution states that: "States with initiatives that go beyond the federal/state Lifeline requirements increase the percent of eligible low-income households with telephone service by an average of 25.3 percent." Clearly, those states that take extra steps to reach low-income customers have a much bigger impact on participation in the Lifeline program than those states that increase the benefit amount alone.

Based on this data, Wisconsin's initiatives likely had a significant impact on increasing participation in Lifeline and Link-Up. Wisconsin has several initiatives that go beyond the federal guidelines, including granting eligibility to recipients of the Homestead Tax Credit and requiring telephone companies to notify customers about Lifeline & Link-Up during contacts for new or moved service. Companies must also notify customers concerning the availability of these programs during the first customer contact of the year to discuss disconnection or deferred payment arrangements.

Telecommunications Equipment Purchase Program (TEPP)

Wis. Admin. Code §§ PSC 160.07 and 160.071 assist customers with special telecommunications needs to purchase equipment under the Telecommunications Equipment Purchase Program (TEPP). An example of such equipment is a teletypewriter (TTY) to allow deaf people to use the telephone network. The program provides funds to help all such customers pay for appropriate equipment. The latest revisions to the universal service rules update the discounts to reflect changes in the average price and type of equipment used. Other changes were made to clarify administration of the program. The co-payment for equipment in the hard-of-hearing category has been eliminated and the rule has been clarified to explain that monies from the Telecommunications Assistance Program (TAP) of the Wisconsin Department of Health and Family Services may be used to cover the co-payment in other categories involving hearing loss. Rules also call for the fund administrator to maintain a list, in consultation with Commission staff, vendors, and interested parties, of equipment that is eligible for purchase with program vouchers. Finally, a new provision requires that when a second telephone line is necessary for hearing-impaired customers to use two-line voice carryover technology, there will be no

[4] The rules resulting from the most recent biennial review of the universal service rules went into effect May 1st of this year.

charge for the second line. Telecommunications providers will receive USF reimbursement for the cost of the line.

The table below shows changes in the USF amounts for TEPP funding categories:

Type of disability	Old amount	New amount
Hard of hearing (HH)	$200	Same ($100 co-pay eliminated)
Deaf/severely HH	$500	$800
Speech impaired	$1,500	$1,600
Mobility impaired	$1,500	$1,600
Deaf with low vision	$2,500	Same
Deaf and blind	$6,700	$7,200

Concern has been expressed in the past that the TEPP program was spending less than its budgeted amount. In the year 2000, the programs expenditures have increased to budgeted levels due to increased participation. Increased participation may be due to renewal of eligibility of prior recipients, eligibility of additional family members, results of prior promotional activities and the training of county human services employees dealing with the eligible population.

B. The Basic Set of Telecommunications Services

The universal service rules promulgated in 1995 defined the basic set of essential services to include single-party voice-grade service with 15 standard characteristics, plus the annual distribution of a telephone directory and timely repair.[5] The latest revisions of the rules make some minor changes in that list, adding connectivity to a variety of networks to the list, and clarifying that revertive calling (which allows customers to dial their own number to ring extension phones) is not required on cellular service, and other services which cannot have extensions.

[5] Wis. Admin. Code § PSC 160.03(2).

Intercept Announcements Becoming Readable for the Deaf

To accommodate the needs of deaf telecommunications users, the latest rule revision amended language requiring intercept messages on vacant and new numbers to require that such messages also be in a format that is readable on the TTYs used by deaf customers. Implementation of this section was required on November 1, 2000. Wisconsin is the first state to require the wholesale incorporation of such accessibility for deaf customers. Because of our groundbreaking role, new intercept messages had to be scripted and then software and hardware upgrades needed to be obtained and scheduled for installation in all the telephone companies' switches. Although implementation is well underway, and the vast majority of the population has access to at least some of the messages in TTY format, completion will take longer than expected. Implementation should be substantially complete by the second quarter of 2001.

Facsimile and data transmission

The minimum standard for data transmission of 9600 bps is adequate for sending or receiving facsimile, electronic mail, and basic text. By the end of 1996, 100 percent of companies reported that their networks could meet this standard, an improvement over the 74 percent rate for 1995. In addition, 88 percent of LECs could support transmission at 14,400 bps on at least a portion of their lines.[6] However, significantly faster transmission speeds are required for effective access to Internet sites that include pictures, video, audio, and other advanced features. Many heavy Internet users are now purchasing services such as Cable Modems and ADSL service, which can generally support speeds of 380,000 to 1 million bps, and often higher.

A year ago, studies indicated that 25 to 35 percent of Wisconsin households used the Internet to gather information, purchase goods and services, and exchange messages. This year, that percentage has risen to 40 to 50 percent, depending on the study.

The quality of an Internet connection using computer modems over telephone lines depends upon the technical quality of the line. Most of the installed plant, including much of the "state-of-the-art" technology currently used by local exchange companies, is designed for the transport of voice traffic. The tradeoff for this emphasis on analog voice traffic is a limit to the speed at which the lines can transmit data. Data traffic has been growing much faster than voice and this trend is expected to continue. The volume of data traffic is much greater than the total volume of voice traffic on the nation's telecommunications networks.

The Commission decided not to change the current standard for data transmission in the most recent round of universal service upgrades, and not to require additional investment by the telephone companies to upgrade the network for data service at this time. Any decision to upgrade the telephone network to handle higher transmission speeds is controversial because of the costs involved. It may also involve an effort to move data traffic to its own separate network instead of continually upgrading the existing voice network to handle both analog and digital traffic. This suggests that the issue of transmission speed may soon be an issue for both the Commission and the Legislature.

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[6] *Status of Investment in Advanced Telecommunications Infrastructure in Wisconsin*, (Infrastructure Report) Public Service Commission of Wisconsin, December, 1997. p. 29, 33.

C. Affordability of and access to advanced service capabilities

The following advanced service capabilities are specified in the universal service rules:[7]

- Digital access lines and channels by January 1, 2000.
- High speed data transfer connectivity by January 1, 2002.
- Two-way interactive video conferencing and two-way interactive imaging capabilities by January 1, 2003.

These capabilities are to be made available, upon request, in a timely manner and at reasonable prices, to any customer of a local exchange service provider. Digital access lines and channels are the best transmission medium for video and data services, including Internet access, because they make possible much higher transmission speeds and capacity. In addition, digital signals from computers and other equipment will no longer need to be converted to analog signals for transmission purposes, then converted back to digital on the receiving end. Analog voice signals will need to be converted to digital signals when carried on these channels, but this usually happens somewhere in the network anyway.

Given the rapid increase in the volume of data traffic, it is anticipated that advanced data service capabilities will be available at reasonable rates to customers in urban and suburban areas by the dates specified in the rules. However, rural areas have longer average loop lengths that require more investment to provide high-speed services and the demand for digital loops is not expected to be as strong. CLEC entrance into provision of advanced service capabilities in rural areas is not guaranteed unless companies can develop a business case for such investments.

In addition, rural LECs have to be concerned that, if revenues from advanced services start sluggishly, the LECs will need a long payoff period to recover their investment. The pace of technological change has increased the odds that long payoff periods will not be available. LECs also recognize that the cost of new technology typically declines over time and are waiting to see how the market develops reduces the risk of investing in the wrong technology.

If Wisconsin is to mandate that specific advanced services be universally available throughout the state, cost recovery mechanisms must be carefully crafted. The existing advanced services program will meet this need in the near term, but additional programs may need to be created during the next biennial review of the universal service rules.

III. The affordability of and accessibility to high-quality education, library and health care information services

The Commission created a program to support provision of services to schools, educational institutions, libraries and non-profit hospitals. The statutory basis for USF program support for educational, library, and health care information services was removed in 1999 Wisconsin Act 9. The USF rules recently promulgated by the PSC have restricted this discount program to those institutions

[7] Wis. Admin. Code § PSC 160.035(1).

already in the program. Consequently, the proposed $75,000 is to reflect only the discounts due in FY 2001 to those institutions accepted into this discount program before 1999 Act 9 became effective.

1999 Wisconsin Act 9 (the biennial budget bill) required the Commission to promulgate rules to establish a Medical Telecommunications Equipment Program. Under the provisions contained in Act 9 the Commission may spend up to $500,000 annually for grants to nonprofit medical clinics and public health agencies for the purchase of telecommunications equipment to be used in providing services to their clients. The Commission implemented this program in its most recent revision of the universal service rules. At its meeting of November 21, 2000, the Commission granted awards to five eligible applicants for a total of $159,637. The Commission expects to review additional applications for funding during 2001.

The latest rule revision also created a new program in Wis. Admin. Code § PSC 160.125(2) under which non-profit organizations may apply for funding for projects which further the statutory goals of the universal service fund, provided those projects do not merely duplicate existing universal service fund programs. The Commission expects this new section of the rules to serve as a means of encouraging innovative new methods of meeting universal service goals and to allow the Commission to rapidly address unforeseen needs. At its November 21, 2000, meeting the Commission approved grants to six non-profit organizations for a total of $193,645.

IV. Financial assistance provided under the Universal Service Fund

Wis. Stat. § 196.218(5u) requires the Commission to include in its biennial budget request under Wis. Stat. § 16.42 a proposed budget for each individual program for which the Commission proposes to expend moneys from the universal fund in the forth-coming biennium. The proposed budget must describe each program and identify the proposed expenditure amount for each program for each fiscal year of the biennium.

For FY 2001 the Commission proposed a total appropriation for USF programs of $6,900,500. The Joint Finance Committee approved the proposed budget at its July 12, 2000, meeting.

By program, the FY 2001 USF budget is as follows:

Program	FY 2001 budget request
Institutional Discount Program	$75,000
TEPP	$1,550,000
Voice Mail for the Homeless	$20,000
Rate Shock Mitigation (SMP)	$0
High Rate Ceiling Credits	$1,400,000
Lifeline	$1,750,000
Link-Up	$450,000
Outreach for Low-income Programs	$250,000
Newsline for the Blind	$45,500
Non-Profit Groups – Access	$500,000
Medical Telecommunications Equipment	$500,000
Public Interest Payphones	$100,000
Two Line Voice Carryover	$10,000
Provider of Last Resort	$0
Eligible Telecommunications Carrier	$0
Advanced Services	$0
Administration	$250,000
Total for FY 2001	**$6,900,500**

A summary of each program and the basis for the FY 2001 estimate (including FY98 and FY99 actual expenditures) is provided below:

Institutional Discount Program [§ PSC 160.11]
FY 2001 request - $ 75,000

FY 98 actual $ 284,891
FY 99 actual $ 194,755
FY 00 expected $ 98,000
FY 01 estimate $ 75,000

This program was initiated to provide discounts to schools, libraries and hospitals for certain telecommunications services. Discounts were provided for three years to a qualifying institution; the discount from the service rates were 30 percent in the first year, 20 percent in the second year, and 10 percent in the third year. Discounts are paid from the USF to the school, library, or hospital.

The statutory basis for USF program support for educational, library, and health care information services was removed in 1999 Wisconsin Act 9. The USF rules recently promulgated by the PSC have restricted this discount program to those institutions already in the program. Consequently, the proposed $75,000 is to reflect only the discounts due in FY 2001 to those institutions accepted into this discount

program before 1999 Act 9 became effective.

Telecommunications Equipment Purchase Program (TEPP) [§ PSC 160.071(1)]
FY 2001 request - $ 1,550,000

FY 98 actual	$ 271,705
FY 99 actual	$ 604,387
FY 00 expected	$ 770,000
FY 01 estimate	$1,550,000

This program assists persons with disabilities with the purchase of certain telecommunications equipment so that they can use the telephone system. Vouchers are given to the qualifying individuals and these vouchers are used to pay vendors for a portion of the cost of the necessary telecommunications equipment. Vendors submit the vouchers to the USF administrator and receive a check form the USF. Voucher amounts vary for different types of disabilities (because the typical equipment needs of persons in these different categories vary in price). In most cases, the purchaser needs to make a $100 co-payment when purchasing the equipment. If the co-payment and voucher are not sufficient to cover the equipment price, the purchaser pays any additional amount.

Rule changes recently adopted for the TEPP increase the voucher amounts in some categories, eliminate the co-payment requirement for the hard-of-hearing category, and permit more than one person in a household to get a voucher. (Previously, the rules allowed only one person in a household to get a voucher every three years, even if there was another person in the household with the same disability.

The increase in TEPP funding relates to the increased voucher limits, the co-payment elimination in one TEPP category, the potential for some multiple voucher households, and the potential that some earlier TEPP recipients will be reapplying because they will become eligible again (three years after their last TEPP applications). The proposed program amount of $1,550,000 also reflects the intention of the PSC to undertake more extensive publicity efforts to inform the public about TEPP. The PSC has been advised by many in the disability community, that the TEPP, as valuable as many persons find it to be, is still not well-known to all who may be eligible. The USF rules were changed to specify and clarify that the fund may be used "for the purpose of informing the public regarding the universal service fund, its existence, purpose, intent and areas of use." The FY 2001 estimate includes funding to actively promote this TEPP portion of the USF.

Voice Mail for the Homeless [§ PSC 160.125(1)]
FY 2001 request - $ 20,000

FY 98 actual	$ 0
FY 99 actual	$ 0
FY 00 expected	$ 0
FY 01 estimate	$ 20,000

The USF rules include a provision to support the use of voice mail by homeless persons so that they can use the telephone system to the extent of being reachable, for instance, for medical or employment purposes. Under the rules, an agency that serves homeless clients may use voice mailboxes without charge. The provider that supplies this service to the agency can recover its incremental costs of this service from the USF. Although a few agencies serving the homeless have shown interest in this program, this service has not been adopted to date. One issue noted is that there are administrative costs to coordinating such a voice mail program, and the agencies could not afford the staff time to initiate such a voice mail program for their clients use.

The new USF rules will allow a qualifying agency to get USF reimbursement of costs directly attributable to administering this voice mail program for its clients. With this change, further interest in this program is expected.

Rate Shock Mitigation (SMP) [§ PSC 160.10]
FY 2001 request - $ 0

FY 98 actual	$ 28,251
FY 99 actual	$ 14,160
FY 00 expected	$ 0
FY 01 estimate	$ 0

This is an existing program that permits the USF to provide support to a telecommunications provider that needs to raise its rates by a large amount. If such an increase is deemed to be so large as to burden consumers if enacted on a flash cut basis, the increase may be phased in, and the needed revenues the provider would not get immediately from the rate increase would be paid to the provider from the USF.

This program provides an important safety net for large rate increases but the PSC does not anticipate use of this program in FY 2001.

High Rate Ceiling Credits [§ PSC 160.09]
FY 2001 request - $ 1,400,000

FY 98 actual	$ 1,471,494
FY 99 actual	$ 1,337,884
FY 00 expected	$ 1,125,000
FY 01 estimate	$ 1,400,000

The high rate ceiling credit program provides USF payments to local exchange service providers to reimburse them for credits to customers needed to keep local rates at affordable levels. Rates are compared to median household incomes. If the rates the company needs exceed the threshold established in the rules, the customers pay the threshold price and the USF pays the company the difference.

The new rules have changed the formula for calculating the applicable local service price that is compared to the income threshold. This change will likely increase high rate ceiling assistance claims by local exchange service providers. On the other hand, increases in median incomes are expected to reduce the need for such claims. Experience with the new rule will provide better estimates for this program as time progresses. The proposal for $1,400,000 is based on a modeling of the potential impact of the new rules.

Lifeline [§ PSC 160.062]
FY 2001 request - $ 1,750,000

FY 98 actual	$ 332,279
FY 99 actual	$ 299,651
FY 00 expected	$ 401,000
FY 01 estimate	$ 1,750,000

The Lifeline program makes a lower monthly rate for telephone service available to low-income consumers. In conjunction with the Link-Up program described below, these low-income USF programs are intended to get consumers onto the telephone network and help them to keep their services. Lifeline is provided jointly by the Federal Communications Commission (FCC) and the states. A portion of Lifeline reimbursement to the telecommunications providers is from the FCC USF.

New PSC Lifeline rules increase the Lifeline benefit. Additional promotion of low-income programs like Lifeline and Link-up are also anticipated. Given the rule changes and the expected promotional efforts (see Outreach section below), the estimated expenditures for Lifeline are expected to increase dramatically.

Link-Up [§ PSC 160.061]
FY 2001 request - $ 450,000

FY 98 actual	$ 170.972
FY 99 actual	$ 207,280
FY 00 expected	$ 211,000
FY 01 estimate	$ 450,000

Link-Up is provided jointly by the FCC and the states. Link-Up requires telecommunications providers to waive service connection charges when low-income consumers establish or move their telephone service. The provider is reimbursed from the FCC and state USF for the amounts waived.

The recent PSC rule change increases the amount reimbursed from the state fund. Given that change and the potential for greater participation in Link-Up resulting from additional promotional efforts, the expected FY 2001 expenditure for Link-Up has been increased from historic levels.

Outreach for Low-income Programs [§ PSC 160.063]
FY 2001 request - $ 250,000

FY 98 actual	N/A
FY 99 actual	N/A
FY 00 expected	N/A
FY 01 estimate	$ 250,000

This is an new specific promotional program added to the USF rules. The Commission may use USF moneys to fund collaborative partnerships between community-based organizations and telecommunications providers to increase participation in the USF low-income programs.

The new PSC USF rules specify that up to $250,000 may be spent on this program annually. That is the basis of the FY 2001 request.

Newsline for the Blind (Department of Public Instruction) [PSC 160.05(1)(r)]
FY 2001 request - $ 45,500

FY 98 actual	$ 111,000
FY 99 actual	$ 35,000
FY 00 actual	$ 43,500
FY 01 estimate	$ 45,500

Newsline for the Blind allows blind persons to access audio news stories by telephone. USF support for this program is required by Wis. Stat. § 196.218(5)(a)8. The FY 2001 amount of $45,500 was established in 1999 Act 9.

Non-Profit Groups - Access Programs or Projects [§ PSC 160.125(2)]
FY 2001 request - $ 500,000

FY 98 actual N/A
FY 99 actual N/A
FY 00 expected N/A
FY 01 estimate $ 500,000

This is a new provision in the PSC's USF rules. Non-profit organizations may seek USF support for programs or projects that will facilitate the affordable access to telecommunications and information services consistent with the purposes for USF as specified in the statutes (§§ 196.218 (5)(a)1. and 2.). The USF will reimburse successful applicants for up to 50 percent of the cost of the reimbursable portions of the program or projects.

The PSC rule limits USF spending for this program to no more than $500,000 annually. That is the requested amount for this program for FY 2001.

Medical Telecommunications Equipment Program [§ PSC 160.115]
FY 2001 request - $ 500,000

FY 98 actual N/A
FY 99 actual N/A
FY 00 expected N/A
FY 01 estimate $ 500,000

This is a new program established by Act 9. The Commission has promulgated rules to permit medical clinics and public health agencies to request USF support for the purchase of telecommunications equipment to promote technologically advanced medical services, to enhance access to medical care in rural or underserved areas of the sate, or to enhance access to medical care by underserved populations or persons with disabilities in the state.

Wis. Stat. § 196.218(4u) specifies that the PSC may spend up to $500,000 annually from the USF for this program; that is the basis of the requested $500,000 for FY 2001.

Public Interest Payphones [§ PSC 160.073]
FY 2001 request - $ 100,000

FY 98 actual N/A
FY 99 actual N/A
FY 00 expected N/A
FY 01 estimate $ 100,000

A new rule has been promulgated to be consistent with FCC rulings on the provision of pay telephones when they are needed in the public interest but might not otherwise be provided. Under the new PSC rules, when a pay telephone is installed after being designated as a public interest pay telephone, the provider of that telephone may be reimbursed for the costs associated with provision of the service, less any federal universal service support or revenues generated at the pay telephone.

The rule defines the conditions under which a pay telephone may be designated as a public interest pay telephone, such as availability, accessibility, maximum allowed revenues and the need to fulfill a public policy objective in health, safety or welfare. The budget for this program for the current fiscal year is $100,000. The day-to-day management of the program is subcontracted to a non-profit entity; but the Commission retains the responsibility of approving the designation of a phone as a public interest pay phone. The program will begin in January 2001 with the potential for funding about 200 public interest pay phones for the remainder of the fiscal year.

Because this is a new program, the requested amount is an estimate that will be updated based on actual demand.

Two-line Voice Carryover [§ PSC 160.071(6)(b)]
FY 2001 request - $ 10,000

FY 98 actual	N/A
FY 99 actual	N/A
FY 00 expected	N/A
FY 01 estimate	$ 10,000

Two-line voice carryover is a service technology that some persons with hearing impairments use to communicate over the telephone. It requires a second line. The new rules allow a customer to get that second line without a service connection charge or monthly rate. The service provider may be reimbursed for the amounts waived for these customers.

Use of this provision is expected to be low, especially in the first year of its existence. The request for $10,000 is an estimate pending further experience with actual demands for this service.

Provider of Last Resort [§ PSC 160.14]
FY 2001 request - $ 0

FY 98 actual	$	0
FY 99 actual	$	0
FY 00 expected	$	0
FY 01 estimate	$	0

This is an existing program. In the event that no provider is willing to be the provider of last resort for telecommunications served to an exchange, the PSC shall hold an auction for the provider of last resort status and may provide USF compensation to the provider selected for that role.

The need for this provision is dependent on many actions and circumstances in the marketplace that cannot be foreseen at this time. For FY 2001, the PSC is not aware of any pending actions that would create USF payments for this purpose.

Eligible Telecommunications Carrier [§ PSC 160.13(5)(c)]
FY 2001 request - $ 0

FY 98 actual	N/A
FY 99 actual	N/A
FY 00 expected	N/A
FY 01 estimate	$ 0

This is a new provision in the rules to address the PSC designation of certain providers as eligible telecommunications carriers (ETC); an ETC is then eligible for federal (and some state) universal service support. The rules have a provision for designating an ETC in an area if no provider seeks that status. In such a case, the PSC may use the provider of last resort process in Wis. Admin. Code §§ PSC 160.14(3) to (6) to determine an ETC, and payments from the USF to the designated ETC may arise.

In this next fiscal year, no actions to use make payments from the USF for ETC status purposes are anticipated.

Advanced Telecommunications Services [§ PSC 160.035]
FY 2001 request - $ 0

FY 98 actual	$ 0
FY 99 actual	$ 0
FY 00 expected	$ 0
FY 01 estimate	$ 0

This is not a new rule. Under this rule, a provider, a customer, or the PSC may initiate an investigation about the deployment of advanced services. Following such an investigation, the PSC can determine a deployment schedule, set a maximum rate for the service, and determine if the provider needs USF support to meet the demand for the advanced serve capability.

No determinations have been made to date under this rule; in FY 2001, none are currently anticipated.

Administration [§ PSC 160.05]
FY 2001 request - $250,000

FY 98 actual	$ 124,971
FY 99 actual	$ 141,755
FY 00 expected	$ 140,000
FY 01 estimate	$ 250,000

Fund administration covers a variety of expenditures. The PSC has contracted with a fund administrator to handle assessments and disbursements for the fund and to administer certain of the programs. (Currently, the USF administrator's contract calls for an annual fee of $99,900.) The USF administrator also handles assessments related to TEACH, the UW-System and the DPI BadgerLink, which are funded by the USF. The fund also pays for miscellaneous expenses including printing and promotional materials, travel reimbursement for the public members of the USF Council, interpreters for the deaf at USFC meetings, and assistance from the Department of Revenue in verifying whether Lifeline and Link-up applicants are eligible under the Homestead Tax Credit. (Payments to the Department of Revenue have averaged about $1,900 per month.)

Because of the promulgation of new USF rules, there will be a need for more USF printed materials, for added administrative processes related to new programs, and for some additional promotional and education activities. Consequently, the administration expenditure was increased for FY 2001.

V. Advancing the Public Interest

A. Goals

The factors in Wis. Stat. § 196.03(6) used to determine what constitutes reasonably adequate service and reasonable and just rates are:

1) Promotion and preservation of competition consistent with consumer protection laws.
2) Promotion of consumer choice.
3) Impact on the quality of life for the public, including privacy considerations.
4) Promotion of universal service.
5) Promotion of economic development, including telecommunications infrastructure deployment.
6) Promotion of efficiency and productivity.
7) Promotion of telecommunications services in geographical areas with diverse income or racial populations.

In some cases these goals reflect competing interests and have to be balanced when setting policies. It has frequently been necessary for the Commission to weigh the impact on the different public interest goals when making decisions for which there is not clear precedent, law, or an obviously best choice.

The following assessments of the impact upon public interest goals have been made with

competing interests in mind.

1. Investments identified in Wis. Stat. § 196.196(5)(f)

Wis. Stat. § 196.195(5)(f) requires the Commission to biennially issue a report to the Joint Committee describing the status of investments in advanced telecommunications infrastructure in Wisconsin. The Commission's three reports issued to date have documented the provision of telecommunications infrastructure in Wisconsin to provide more advanced telecommunications services.[8] The Commission found that infrastructure investment to provide advanced services has also increased at a gradual rate. There has been a steady increase in distance education usage, particularly in rural areas, significant increases in Internet use by schools, libraries and health care providers, but only marginal gains in telemedicine, the networking of libraries, or in the use of telecommunications by persons with disabilities. There is also little evidence of an increase in telecommunications investment to help individuals work in their homes. These trends have continued since the last Universal Service Report to the Joint Committee.

As the Commission has authorized additional CLECs, this competition may be promoting infrastructure deployment and spurring incumbent local exchange carriers to enhance their infrastructure, particularly in urban areas. One example is Ameritech's "Project Pronto," which will involve upgrading a large portion of Ameritech's service territory for high-speed data transmission capabilities in the next few years.

The limiting factor in the provision of advanced telecommunications service continues to be the cable and wire facilities connecting switching centers to customers. This network was designed for voice transmission and it is expensive to upgrade loops that are long distances from the central office to accommodate higher transmission speeds. The standard engineering design uses digital loop carrier to concentrate copper distribution lines onto fiber feeder trunks before reaching the central office works. This design is adequate for voice traffic but is incompatible with digital subscriber lines, which require a dedicated line from the central office to the customer.

In some cases, the equipment to provide data services may not be compatible between LECs. Some private entities have attempted to solve this coordination problem by contracting with competitive telecommunications providers. This solution is limited because there are few competitive providers in rural areas. There has been some movement towards cooperation among rural LECs to coordinate and share facilities in response to anticipated competitive threats. This cooperation should help with compatibility problems, but may slow or impede the entry of new competitors.

[8] The Commission's 1999 report is available through the Commission's web page at http://www.psc.state.wi.us/papers/tele/infra99/fullrpt.htm.

2. Assistance from USF, WATF, other programs

A survey of institutions conducted by Commission staff for the first annual USF report found that the participants considered the WATF grants to be effective because they made it easier to purchase the equipment necessary to use advanced information services. There was evidence that programs designed to help with the initial investment in equipment to start a data or video network have been more effective than programs, such as the USF, which provide small or short term reductions in the ongoing telecommunications costs. The up-front assistance helps keep the focus on new and innovative programs that are the target of the WATF program, but the limited funds available eliminate many programs that need ongoing help.

As mentioned above, it is easier to justify the ongoing costs of an existing program than the initial startup costs. One health-care institution reported that without the WATF grant, upper management would not have committed money for a video conferencing network. It now has seven video conferencing sites that make it possible for medical staff to be trained without having to incur travel and lodging costs and without losing the time this takes away from their jobs. Diabetics and other geographically diverse interest groups are using the network to share concerns, experiences and ideas. The network also saves costs for recruitment by allowing prospective employees to be interviewed without incurring travel costs.

With a limited amount of funds available, the number of recipients that can receive assistance from grant programs is small relative to the number of education, library and health care institutions in the state. In order to make the funds stretch further, recipients are required to procure matching funds. The number of grants has also been limited because, with the exception of the LECs committed to the WATF by price-cap and alternative regulatory plans, donations to endow the WATF have not materialized as fast as hoped. Many small LECs are reluctant to give cash donations unless there is a guarantee that the grants will be used to fund institutions in their service territory. Many of these LECs have made in-kind contributions to specific groups instead of adding to the general WATF endowment.

For public and private K-12 schools, and for public libraries, the TEACH program has become the primary source for in-state funding of both the ongoing and, depending on the institution, the up-front costs of educational technology. Through the administration of its Educational Telecommunications Access Program, TEACH subsidizes the ongoing cost of Internet access and/or videoconferencing network costs for schools and libraries. Public K-12 schools are eligible to receive an annual Educational Technology Block Grant. Block Grants are funded through state general purpose revenues. Each district is eligible to receive a minimum $5,000 flat payment, with additional dollars calculated according to a statewide formula based on the number of students and comparisons to statewide average property values. Under the provisions of the state biennial budget the Educational Technology Block Grant Program will continue with a total funding commitment of $70 million over the biennium of 1999-2001.

The WATF continues to fund advanced and innovative telecommunications-based projects, and provides funding for proposals to educate the state's residents, businesses, and institutions about the benefits of advanced and innovative telecommunications technologies. The WATF made grant awards in April and October, 2000, of nearly $957,000. Details concerning grant recipients may be found on the WATF web page at http://www.watf.state.wi.us/.

3. Price regulation, alternative regulation, and promotion of competition

a) General Considerations

There are many factors that influence a company's decision to invest, making it impossible to find a direct causal relationship between a regulation plan and investment performance. The strongest factor influencing investment is the overall level of economic growth in the state. A healthy economy increases the demand for additional telecommunications services, which in turn leads to more investment. A major reason that Ameritech and GTE have increased their level of investment since they have been under price regulation is that the Wisconsin economy has enjoyed robust growth during this period.

For smaller companies, investment is dominated more by a pattern of periodic large investments followed by several years of relatively small investment activity. This pattern makes it difficult to compare investment performance over any particular period of time. Larger companies are able to smooth out these cyclical patterns by averaging investments over many exchanges. The single most expensive investment for LECs is a switch replacement. During the past decade, LECs have completed an investment cycle in which digital switches have replaced analog switches. Although this cycle has been completed, the pace of technological change has increased enough that future investment cycles will come faster but may be less extreme.

b) Price Regulation[9]

The most current assessment of price regulation was conducted by the Commission in docket 05-TI-174, *Investigation of Utility Price Regulation Pursuant to § 196.196(1)(g), Stats*. The order in this docket was finalized in June, 1999.

Wis. Stat. § 196.196 allows local exchange telecommunication utilities to elect to become price-regulated. Two utilities, Ameritech, and GTE North (now Verizon), have elected to become price regulated. Wis. Stat. § 196.196(1)(g)1. directs that five years after a utility elects to become price-regulated, or any time thereafter, the Commission may determine whether it is in the public interest to suspend one or more of the provisions of Wis. Stat. § 196.196(1) as it applies to a price-regulated telecommunications utility, or to approve an alternative regulatory method for that utility. In docket 05-TI-174 the Commission conducted its five-year review of price regulation for Ameritech and GTE (Verizon). The process for this review included reports by the two companies, a report by the Commission staff, recommendations from other interested parties concerning the future of price regulation, and public hearings.

Among the findings of the Commission's review of price regulation in this docket are the following:

- Although competition may be developing more slowly than was expected when 1993 Wisconsin Act 496 was passed, in many ways price regulation is working in the manner in which it was intended.

[9] For a more in depth analysis of price regulation under Wis. Stat. § 196.196, see the Order in Docket 05-TI-174, *Investigation of Telecommunications Utility Price Regulation Pursuant to § 196.196(1)(g), Stats.*, June 23, 1999. It can be found by accessing the Commission's Web Page, http://www.psc.state.wi.us.

?? There has been some positive impact for consumers as a result of price regulation, but there are also some areas that need improvement, including customer compensation for untimely installation or repair.

?? The current price regulation system should be retained with modifications to the rules in Wis. Admin. Code ch. PSC 163 (Telecommunications Utility Price Regulation).

Wis. Admin. Code ch. PSC 163 establishes the mechanics for administering price regulation, including penalties and incentives for service quality and infrastructure investment, and discretionary penalties and incentives. The Commission has opened a rulemaking proceeding to consider proposed changes to this chapter. A public hearing is scheduled for early 2001.

c) Alternative Regulation

In 1993 Act 496, the Commission was given the charge to promote the goals listed in Wis. Stat. § 196.03(6) by approving regulatory methods that are alternatives to traditional rate-of-return regulation.[10] Alternative regulatory plans have been approved for thirteen telecommunications utilities. These plans have been approved in response to applications filed by the companies. In processing these applications, the Commission has followed a set of "Guidelines for the Filing of an Alternative Regulatory Plan in Accordance with Wis. Stat. § 196.195(12)." The Commission has an open rulemaking docket (1-AC-187) in which the Commission proposes to modify, where appropriate, and codify these guidelines into administrative rules. The Commission held a technical conference on this issue in late 1999. The purpose of the technical conference was to allow parties to share initial ideas regarding issues to be addressed in this docket. Commission staff and industry representatives have continued meeting in 2000 regarding the issues in this docket. As part of this rulemaking the Commission will propose, based on its experience, one or more standard, or model, alternative regulatory plans from which telecommunications utilities may choose in lieu of applying for a company-specific, custom-designed plan. The proposed rule language is currently being developed by the Commission staff.

B. Recommendations for Further Enhancing Public Interest Goals

Significant actions to enhance public interest goals may not occur without further guidance from state policymakers on the relative weight to be placed upon those goals. In particular, there has been concern about mandates to promote competition and to mandate the availability of advanced infrastructure, including Internet access, to all areas of the state. Because efforts to promote one goal may come at the expense of other goals, the Commission will need better tools to monitor changes in universal service and infrastructure deployment to insure that there is no deterioration from current levels.

The 1993 Governor's Task Force concluded that the best way to promote infrastructure development would be to "unleash the forces of innovation and competition among all the state's communications providers."[11] The Commission has come a long way in bringing that competition into fruition. To date, the Commission has authorized dozens of facilities-based local service competitors, and hundreds of local service resellers. However, the vast majority of those competitors have entered only the urban markets. Rural competition is, with a few notable exceptions, absent. Some of that lack

[10] Wis. Stat. §196.195(12).

[11] *Convergence, Competition, Cooperation: The Report of the Governor's Blue Ribbon Telecommunications Task Force,* Volume 1, 1993, p 5.

can be attributed to the state and federal franchise protections still enjoyed by the smaller rural telephone companies, but the primary reason is still basic economics. The return on investment is still greater in urban areas, so that is where competitors are concentrating their capital. Until competition in urban areas becomes more mature, or until prices in rural areas increase significantly, rural competition is unlikely.

The Federal Communications Commission is continuing to eliminate subsidies in interstate prices, and to replace those implicit subsidies with explicit subsidies. These explicit subsidies will continue appearing on customer bills as some form of universal service assessment. This trend will continue, and will accelerate if the FCC begins a similar process with the smaller, rural telephone companies.

The Commission will continue to study the issues of infrastructure and data transmission. As the majority of residential customers begin to use the Internet, they will demand network upgrades. The Commission will need to determine how those costs should be recovered: from all customers through rate increases, from data users as a special -- potentially large -- surcharge, or through the universal service fund. The second option, while efficient from an economic perspective, is likely to significantly slow the deployment of data service in rural areas. If the legislature wants to influence the outcome of this controversy, it needs to provide the Commission with additional guidance.

The Commission is beginning the process for the next biennial review of the universal service rules. The Commission is continuing to work with the USF Council to define the changes which will be required.

Pursuant to the federal Telecommunications Act of 1996, the FCC is still in the process of developing national rules on universal service. Some of the Wisconsin USF programs are quite different from what is being implemented by the FCC and in other states, in some cases because the Commission deliberately chose to avoid the problems that have delayed the FCC programs. The Commission will be monitoring FCC activities to assure that the state and federal programs are both working to protect universal service.

VI. Summary

This report summarizes developments relating to the Commission's administration of universal service programs and funding over the last year. Some significant changes to the universal service rules became effective May 1, 2000. The Commission's experience with the lastest rule changes will form part of next year's annual report.

The Commission respectfully submits this report and looks forward to the Joint Committee's input on current and future program elements and administration.

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